

# Hornsea Offshore Wind Farm

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Project Two

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## The Applicant's Response to Natural England's Written Representation

**Appendix I to the Response submitted for Deadline II**

**Application Reference: EN010053**

10 August 2015

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## **Appendix I - The Applicant's response to Natural England's Written Representation**

### **Offshore Ornithology**

The Applicant notes Natural England's written representation has focused on the issues raised within their relevant representation, which are repeated below for ease of reference.

The Applicant has responded to these matters in turn and refers the Ex. A to the updated SoCG between the Applicant and Natural England (Appendix R of the Applicant's response to Deadline II) where further progress has been made on the issues raised.

#### *1. Baseline Data Collection and Methodology - Estimation of baseline populations*

Natural England requested within the Relevant Representation clarification on the methods used to derive population estimates from the raw count data, population estimates and confidence limits derived at a scale consistent with that used for the impact assessment. The Applicant has provided this information and this can be found in Appendix L of the Applicant's response to Deadline I (as further amended at Appendix R of the Applicant's response to Deadline II). It has now been agreed with Natural England that the information provided by the Applicant is sufficient to address their concerns although they still have reservations regarding the survey coverage in December the information provided to data is sufficient for the purposes of the assessment, see paragraph 3.2.4 of the updated SoCG, Appendix R of the Applicant's response to Deadline II.

#### *2. Baseline Data Collection and Methodology - Dealing with incomplete surveys*

Natural England raised concerns in both their Relevant Representation and Written Representation regarding the baseline surveys completed in December across both survey years and the effect this might have on the assessment of impacts during the non-breeding season. The Applicant provided further clarification on this issue in Appendix K of their First Response and it is agreed between the Applicant and Natural England that the baseline data is suitable for use within the assessment, however Natural England have stated that the poor survey coverage in the winter months and the associated uncertainty should be recognised within the assessment, see paragraph 3.2.3 of the updated SoCG at Appendix R of the Applicant's response to Deadline II.

#### *3. Baseline Data Collection and Methodology - Treatment of unidentified species*

Natural England have agreed that the methodology used to assign unidentified species to species groups is appropriate, see paragraph 3.2.2 of the SoCG at Appendix R of the Applicant's response to Deadline II.

#### *4. Baseline Data Collection and Methodology - Estimating the flight height of birds*

The use of site specific flight height data is an area of disagreement between the Applicant and Natural England, however, the Applicant has provided collision risk outputs using all versions of the Band (2012) model (including Option 2) in both the

Application documents and subsequently within Appendix J of the Deadline I response. Although the use of site specific flight height data is an area of disagreement between Natural England and the Applicant, it has been agreed that the Applicant has provided sufficient information in terms of collision risk outputs to inform the assessment, see paragraph 3.2.5 of the SoCG in Appendix R of the Applicant's response to Deadline II.

#### *5. Population scales and apportioning to SPAs*

In their written representation Natural England have reiterated the concerns raised within their relevant representation regarding the apportioning of birds within the Project site to the FFC pSPA. The Applicant and Natural England have continued dialogue on this matter and agreed approach forward, although it was originally anticipated updated apportioning would be available for Deadline II following extensive dialogue with Natural England this will now be submitted at Deadline IIA as shown in the updated Ornithology Roadmap, Figure 1 in the SoCG, Appendix R of the Applicant's response to Deadline II.

#### *6. Collision Risk Modelling*

Natural England have stated in the written representation that their key issues in relation to collision risk modelling are;

- choice of collision risk model,
- handling uncertainty in CRM; and
- the measurement of percentage of birds at potential collision height (PCH)

The choice of collision risk model used within the assessment is an area of disagreement between the Applicant and Natural England, however, the Applicant has presented all four options of the Band model within the assessment and within Appendix J of the Deadline I response; CRM, Addressing Uncertainty Clarification Note. The Applicant will also be presenting collision risk outputs using option 2 of the Band model (Natural England's preferred option) within the apportioning appendices that are due to be submitted at Deadline IIA.

It has now been agreed with Natural England that the Applicant has provided sufficient information in Appendix J to address Natural England's concerns, see paragraph 3.2.5 of the updated SoCG in Appendix R of the Applicant's response to Deadline II.

The Applicant has previously responded to the adequacy of the site specific flight height data in their response to Ex. A question EOO2 (d) at Deadline I although this remains an area of disagreement between the Applicant and Natural England (see SoCG, Appendix R of the Applicant's response to Deadline II) the Applicant has continued to present collision risk modelling output using all 4 options of the Band model including Natural England's preferred output Option 2.

#### *7. Assessment of displacement impacts*

Natural England have advised within their written representation that the displacement assessment should look at a range of displacement values from 30-70% and a range of mortality values 1-10%. Natural England have also stated that given the lack of empirical evidence to support the used of different displacement and mortality rates at different times of the year, the application of the same range of displacement and mortality rates should be applied across all seasons.

The Applicant has adopted the matrix based approach to the assessment and presented a range of displacement and mortality rates in both the EIA and HRA as advised by Natural England. The Applicant, however, does not agree that the same mortality rates should be applied across all seasons. The potential impact of displacement will vary depending on the season. During the breeding period, birds are more restricted to foraging within a limited distance from their nesting sites, and also need to obtain sufficient food not just for themselves, but for young as well. Consequently, any displacement from foraging areas is predicted to have a greater magnitude of impact than at other times. There is little or no evidence on what the extent of the impact magnitude may be, but for the purposes of the assessment mortality rates of between 2 and 10% are applied (as advised by Natural England) to displaced species taken forward to impact assessment. The mortality rate varies between species, with actual assigned values dependent on that species' known behaviour (e.g. habitat and foraging flexibility). These rates are considered suitably precautionary for EIA requirements, as suggested in the interim guidance from Natural England and JNCC, 2012.

#### *8. Assessment of displacement impacts - Treatment of displacement mortality across different seasons in the assessment*

Natural England advise that the displacement mortality predictions carried out in each season should be summed and the annual predicted mortality for the colony or wider population scale be used to assess the population level impact using modelling techniques such as PVA.

The Applicant does not consider the summing of displacement to be appropriate within the EIA, because it does not consider it to be appropriate to add monthly mortality rates together to generate an 'annual' mortality as the impacts in different seasons or months are on different biological populations. Any summation of mortality rates has to take account of the duration of any defined period and the ultimate annual result is highly dependent on the number of periods defined rather than any insight from species population dynamics.

#### *9. Assessment of displacement impacts - Combining collision and displacement mortalities*

Natural England have stated that for the assessment of impacts on gannet collision and displacement mortality estimates should be summed.

The Applicant continues to discuss this matter with Natural England and will provide a further update at Deadline IIA if possible.

#### *10. Population Modelling Approaches and Demographic Parameters*

Natural England highlighted in their Relevant Representation that a recent review of seabird demographic rates by Horswill and Robinson (2015) provides updated rates and that would be more appropriate to use in the PVA modelling for the FFC populations for some species.

As a result of Natural England's comments the Applicant has updated the PVA modelling using the demographic rates as advised, these will be submitted at Deadline IIA as indicated in the Ornithology road, Figure 1 of the SoCG, Appendix R of the Applicant's response to Deadline II.

#### *11. Habitats Regulations Assessment (HRA)*

Natural England have stated within their Written Representation that given the uncertainty surrounding a number of key elements to the Project's HRA assessment (as outlined in their Relevant Representation), it is not possible to conclude at this stage that the Project would not have an adverse effect on the integrity of the FFC pSPA for gannet, kittiwake, guillemot or razorbill and additionally puffin as part of the seabird assemblage.

The Applicant has been working with Natural England to address the issues raised within their Relevant Representation and as a result a number of the key issues raised have been resolved, please see the updated SoCG (Appendix R of the Applicant's response to Deadline II). The Applicant is continuing to work with Natural England and further clarification in relation to the apportioning of impacts to the pSPA will be submitted at Deadline IIA.

#### *12. EIA*

Natural England have stated within their Written Representation that at this stage they are unable to conclude that the project will not have a significant impact on the following species: gannet, kittiwake, lesser black-backed gull, great black-backed gull, guillemot, razorbill or puffin at an EIA population scale. Natural England have stated the key outstanding issues are:

- Population scales and population sizes used in the assessment of EIA impacts;
- The approach taken by the Applicant whereby assessment of population impacts for EIA has been assessed separately for different seasons, (and only when baseline mortality within a particular season exceeds 1% of baseline mortality), rather than by considering the predicted mortality impact across the whole annual cycle against the largest or most appropriate population scale; and
- Metrics and threshold for assessing the significance of the predicted impacts for gannet, kittiwake, guillemot, razorbill, puffin, great blackbacked gull and lesser black-backed gull at an EIA population scale, both cumulatively and for the Project alone.

The Applicant has followed advice from Natural England regarding the population scales and sizes used within the assessment. Following the S42 consultation

response from Natural England, the Applicant updated the EIA assessment using the BDMPS population scales and sizes as detailed in Furness (2015).

Following advice from Natural England that the population information detailed within the BDMPS report should be used within the EIA the Applicant questioned at a workshop on the 18<sup>th</sup> September 2014 whether the EIA would need to be broken down into seasonal impacts for each species, highlighting that this was not standard practice in EIAs. Natural England requested that the EIA should be assessed seasonally and the Applicant responded and updated the EIA accordingly.

### *13. Assessment of Cumulative and in-combination effects*

In their Written Representation Natural England have stated they have remaining concerns over the cumulative and in-combination effects due to the projects that are currently included within the assessment. The Applicant has updated the in-combination assessment for gannet, kittiwake, guillemot, razorbill and puffin providing further clarification on any reductions that have been applied to projects as result of commitments to not build to full consented capacity. With regard to any operational projects that have been omitted from the in-combination assessment, it was agreed with Natural England that the only project that was not included within the assessment was Scroby Sands and even if any assessment figures were available the effect these would have on the overall assessment is negligible.

Natural England have also commented on some projects within the in-combination assessment that have reduced collision figures as a result of applied capacity reductions. The Applicant will provide updated in-combination assessments within the apportioning appendices to be submitted at Deadline IIA, where the reductions applied to both Triton Knoll and Galloper wind farms have been removed.

## **Marine Mammals**

The Applicant notes that Natural England have raised the issue of a possible SAC for harbour porpoise in the southern North Sea in their Written Response (paragraph 6.6.2). The Applicant notes that no further information is publically available on the dSAC at the time of writing this response, and therefore, has nothing further to add (to that which it raised in the First Response (EOMM22)). The Applicant and Natural England are committed to maintaining a watching brief and acknowledge that consideration of the implications of the designation of dSACs may be required once the material is publically available.

The Applicant notes the comments raised by Natural England with regard to Potential Consequences of Disturbance (PCoD), noise reduction technologies, concurrent piling, cumulative impacts and entanglement with anchored monopiles. An agreed position has been reached between the Applicant and Natural England on these points in Appendix XX of the First Response and the Applicant would refer the Ex. A to: PCoD (paragraphs 7.2.12, 7.2.13 and 7.2.22), noise reduction technologies (paragraph 7.2.25), concurrent piling (paragraph 7.2.21) and entanglement with anchored monopiles (paragraph 7.2.16). The Applicant acknowledges the statements

made by Natural England on these matters and has nothing further to add at this stage.

The Applicant acknowledges that Natural England still has concerns around the tipping points in terms of vessel disturbance and reduced porpoise foraging, and this is noted in the SoCG between the Applicant and Natural England (Appendix 4 (Item 4.11) of Appendix XX of the First Response). The Applicant agrees with Natural England's Written Representation that this concern is of a wider issue than for just the Project alone; however, the Applicant would confirm to the Ex. A, that the assessments undertaken by the Applicant, both alone and cumulative, assess this risk of impact to be low.

### **Marine Processes**

The Applicant acknowledges the points made by Natural England with regards to Marine Processes and notes that further dialogue was held with Natural England regarding the issues where additional clarifications had been sought. Agreement has now been reached between the Applicant and Natural England in the case of each of these issues and as such there are now no outstanding concerns on issues relating to this topic. These points of agreement are documented in Section 4 of the SOCG.

### **Marine and Intertidal Ecology**

The Applicant acknowledges the points made by Natural England with regards to trailer hopper suction dredgers (THSD) and refers the Ex. A to the agreed statement in the SoCG between the Applicant and NE (Appendix XX of the First Response).

With regard to methods of access, the Applicant acknowledges the concerns that Natural England has expressed in relation to the sand dunes and access requirements to the intertidal. The Applicant and Natural England have discussed this issue on several occasions and the SoCG between the Applicant and Natural England (Appendix XX of the First Response), provides details of these discussions. Further the Applicant can confirm that Version 3 of the DCO (Appendix A of the Applicant's Response to Deadline 1) has been updated and a new sub paragraph has been included under Requirement 8 (2) to state that the Code of Construction Practice must include;

*“(m) details of the access route to the intertidal, the expected number of vehicles that will be accessing the intertidal and the expected number of vehicle trips to the intertidal.”*

As a consequence it is the Applicant's understanding that this matter is now agreed. The Applicant notes that paragraph 6.6.31 of the Natural England written representation appears to be incomplete and anticipates that the missing text is likely to relate to confirmation of this agreed position.

The Applicant notes the concern raised by Natural England in relation to SSSI consent and the information that they deem necessary to be submitted prior to commencement of works. The Applicant would highlight, in addition to the plans referenced by Natural England, the commitment under Condition 10(2)(i) of the DMLs to submit an offshore project maintenance plan (which will include details of electrical

circuit maintenance) to the MMO for approval in consultation with the relevant statutory nature conservation body and this will also include provision for the review and resubmission of the plan every three years during the operational phase. This maintenance plan will be based on final scheme design and should therefore provide Natural England with the level of precision required.

The Applicant and Natural England have discussed the SSSI requirement at various meetings and the Applicant maintains the position that the undertaker of the Project will need to comply with the relevant provisions of Section 28 of the Wildlife and Countryside Act (WCA) 1981 in any event since it is a statutory requirement and therefore there is no need for any separate requirement or condition on the face of the DCO/DMLs. An agreed statement has been inserted within Section 8 of the SoCG between the Applicant and Natural England to confirm that the provisions of Section 28 of the WCA will be complied with prior to works being carried out in a SSSI.

### **Intertidal ornithology and the Humber Estuary SPA**

The Applicant notes that Natural England have remaining concerns relating to potential impacts of disturbance to overwintering features of the Humber Estuary during routine scheduled maintenance and inspections of the cable route in the intertidal area. Specifically, Natural England state that disturbance on consecutive days for 2-3 weeks in the intertidal during the overwintering period is likely to be a significant effect on the Humber Estuary SPA and they recommend that scheduled inspections are conducted outside the main overwintering period (October to March inclusive) for birds, and that this is secured in the DCO/DML.

It is the Applicant's position however, that the activity required to undertake scheduled maintenance will be of no greater impact than the existing public use of the area. It should also be noted that vehicles and vehicle-movements are tolerated by waterbirds much better than people at the source of the disturbance. Some acclimation to routine activities would be expected within the 2 to 3 weeks as many waterbird species are seen to mitigate the effects of continued but harmless disturbances by habituation (i.e., as they become used to the disturbance they react less strongly). Such habituation is observed by waterbird to the routine activity of bait gathering and which occurs at Horseshoe Point. In common with the Applicant's inspection methodology, bait diggers also have the tendency to re-work areas over successive tides through a spring tide cycle.

It is the Applicant's view that there is no need for a specific condition on the face of the DCO/DMLs requiring 'scheduled' inspections to take place outside overwintering period as there are already sufficient controls within the DMLs. Firstly, Condition 10(2)(i) of the DMLs requires an offshore project maintenance plan to be submitted to the MMO at least four months prior to commencement of the operation of the licensed activities which will set out the maintenance activities to be carried out and which is to include provision for the review and resubmission of the plan every three years during the operational phase. This plan is to be approved by the MMO in consultation with Natural England and therefore Natural England will be given the opportunity to consider any maintenance activities proposed in this plan and to feed back to the

MMO. In addition, the maintenance activities permitted by the DCO link back to what has been assessed and this therefore restricts the maintenance activities that can be carried out under the DCO. Finally, the undertaker will need to comply with the relevant provisions of Section 28 of the Wildlife and Countryside Act 1981 thus providing Natural England with further comfort.

The Applicant considers that a blanket restriction on scheduled maintenance during the wintering period is overly restrictive and is not justified given that many scheduled maintenance activities would not give rise to the type of effects that Natural England are concerned about.

### **Draft Development Consent Order / Deemed Marine Licences**

Paragraph 6.6.38 of Natural England written representation notes concerns regarding disturbance to features of the Humber Estuary SPA during the overwintering period as a result of scheduled inspections and that these activities should be carried out outwith the over wintering period and secured in the DCO/DMLs. Notwithstanding the disagreement with regard to potential for adverse effects from such activities, it is the Applicant's view that there is no need for a specific condition on the face of the DCO/DMLs requiring 'scheduled' inspections to take place outside the overwintering period as there are already sufficient controls within the DMLs. Firstly, Condition 10(2)(i) of the DMLs requires an offshore project maintenance plan to be submitted to the MMO at least four months prior to commencement of the operation of the licensed activities which will set out the maintenance activities to be carried out and which is to include provision for the review and resubmission of the plan every three years during the operational phase. This plan is to be approved by the MMO in consultation with Natural England and therefore Natural England will be given the opportunity to consider any maintenance activities proposed in this plan and to feed back to the MMO. In addition, the maintenance activities permitted by the DCO link back to what has been assessed and this therefore restricts the maintenance activities that can be carried out under the DCO. Finally, the undertaker will need to comply with the relevant provisions of Section 28 of the Wildlife and Countryside Act 1981 thus providing Natural England with further comfort.

The Applicant considers that a blanket restriction on scheduled maintenance during the wintering period is overly restrictive and is not justified given that many scheduled maintenance activities would not give rise to the type of effects that Natural England are concerned about.

In relation to the recommendation by Natural England for a management scheme to be provided for the lifetime of the project in relation to SSSI Consent, the Applicant considers that this requirement falls within the requirements of the Wildlife and Countryside Act. In the event that the provisions of this Act require a management plan to be carried out, the undertaker will prepare such a plan in accordance with the legislation. The Applicant submits that it is not necessary for a separate condition to be inserted into the DCO/DMLs.

In relation to the recommendation by Natural England for a requirement in the DCO for monitoring to be carried out in accordance with the principles set out in the In

Principle Monitoring Plan (IPMP), the Applicant refers the Ex. A to Table 10.1 of the SoCG between the Applicant and NE (Appendix XX of the First Response). The Applicant has agreed to develop an IPMP during examination of the Project and has issued a draft to MMO and Natural England for comment. The Applicant does not consider it appropriate to include wording on the face of the DCO/DMLs relating to the need to undertake an IPMP as it is the Applicant's position that the purpose of the IPMP is to assist in the preparation and approval of other plans (which are secured under conditions of the DCO/DMLs and must be approved by MMO in consultation with Natural England), and the detail of the IPMP will be included in the plans required under the existing Conditions of the draft DMLs.

In relation to paragraphs 6.6.43 and 6.6.44, the Applicant acknowledges the concerns raised by Natural England in relation to monitoring of ornithological features and notes that the advice from Natural England will be dependent upon outputs from work that has yet to be undertaken. As such it is the Applicant's position that the wording in the DMLs is not altered as suggested by Natural England to enable both standard monitoring and/or input to strategic bird monitoring, but instead that Conditions 15(2)(b) and 17(2)(a) of DMLs A1 and B1 are reworded to state "*any ornithological monitoring required by the ornithological monitoring plan submitted in accordance with Condition 10(2)(k)*". The Applicant would then propose including a commitment in Condition 10(2)(k) of DMLs A1 and B1 for an "*ornithological monitoring plan (OMP) setting out the circumstances in which ornithological monitoring will be required and the monitoring to be carried out in such circumstances*" to be submitted to and approved by the MMO in consultation with the relevant SNCB. The Applicant proposes to include this wording in the next version (4) of the draft DCO to be submitted at Deadline IIA.

This approach is in line with the approach to marine mammal monitoring. The Applicant is of the opinion that adapting the Conditions as set out above still retains the commitment to ornithological monitoring, but recognises the need to retain flexibility for the most appropriate monitoring strategy (be it site specific, colony specific or strategic) to be agreed at the appropriate time. This has been suggested to the MMO and Natural England during consultation on the IPMP.